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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/202,244	02/19/1999	STEFAN BREUNIG	022701-803	2643

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EXAMINER

MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 07/02/2003

34

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/202,244

Applicant(s)

BREUNIG ET AL.

Examiner

Margaret G. Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22 to 25, 27 to 34, 36 to 44, 46 to 48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22 to 25, 27 to 34, 36 to 44, 46 to 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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1. Claims 22, 43 and 48 are objected to because of the following informalities:
"hyrosilylating" is a misspelling. Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22, 24, 25, 27 to 30, 32, 41, 43, 44 and 46 to 48 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jachmann et al. for reasons of record.

5. Claims 34 and 36 to 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Jachmann et al. for reasons of record.

6. Claims 23, 30, 31, 33, 39, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jachmann et al. for reasons of record.

7. Applicants' traversal of these rejections is not persuasive of novelty and/or unobviousness. On page 18 of applicants' response, in the first full paragraph, applicants state that the reaction mechanism cannot be readily determined because the ingredients are added prior to the addition of the organohydropolysiloxane. This argument is not understood since it is clear that a hydrosilylation reaction occurs between the vinyl cyclohexene oxide and the organohydropolysiloxane.

Applicants state that the final product of the synthesis of Example 1 in Jachmann is a bifunctional while the claimed processes form monofunctional organopolysiloxane. However there is nothing in the claims that exclude an additional reactant. Similarly, there is nothing in the claims that limit the process to a single reactant. In fact, claim 22 states that the synthons are *different or identical* and *comprise at least one* hydrocarbon ring in which is included at least one oxygen atom. The term "comprise" opens the synthons to ones other than those having a hydrocarbon ring in which is included at least one oxygen atom. Perhaps applicants are under the impression that the claims are limited to one reactant because of the newly added term "consisting essentially of". However this term limits the scope of a claim to the specified steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. If an applicants contend that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," they have the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. From what the Examiner can tell, the presence of the additional reactant would not appear to materially change the characteristics of the claimed process since 1) the claimed synthon component is inclusive of the hydroxyl reactant in Jachmann et al., as long as the epoxy reactant is present, and 2) the presence of the additional reactant does not interfere with the hydrosilylation reaction of the epoxy reactant.

All of these points aside, the Examiner notes that none of these arguments address the obviousness of reacting the epoxy containing compound with the SiH containing siloxane prior to the reaction with the hydroxyl containing compound. The bottom of column 8 teaches introducing the R₃OH group into an organopolysiloxane having epoxy groups. In this process, one must first form the epoxy group containing siloxane, and thus one does not need to use two reactants at once.

For these reasons, in addition to the many reasons of record, the Examiner maintains that the prior art teaches and/or renders obvious the instant claims.

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8. Claims 22, 24, 25, 27 to 32, 34, 36 to 41, 43, 44 and 46 to 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koshar et al. in view of Chandra et al. or Jachmann et al. for reasons of record.

First the Examiner notes that applicants remarks indicate an improvement over homogeneous catalysts during the devolatilization stage. However none of the processes claimed require a devolatilization stage and thus it is not clear how these remarks render the process as claimed unobvious. In addition, as noted previously, applicants are reminded that mere allegations of unexpected results and improvements are not sufficient to overcome an obviousness rejection; Applicants have not shown unexpected results over the prior art. Furthermore applicants' specification states that the crosslinking reactions are initiated by the presence of traces of the "usual catalytic compositions, such as homogeneous catalytic compositions", but as noted in the previous office action a known benefit of platinum catalysts on a silicate carrier (i.e. a heterogeneous catalyst as claimed) is its ability to be easily recovered from the reaction.

Applicants state that Chandra does not disclose or suggest that the catalysts therein would have any effect on a reactant in a hydrosilylation reaction. The catalyst clearly has an effect on a reactant in a hydrosilylation reaction; it catalyzes it to react. Perhaps applicants mean that Chandra does not disclose or suggest that the catalysts have an effect on the reaction product, but Chandra need not teach this to render obvious the use of the catalyst therein for the process in Koshar et al., nor does Chandra need to teach this to render obvious the removal of the catalyst from the system after catalyzing the reaction.

With regards to the arguments on page 21, again applicants are arguing that the prior art fails to realize that a heterogeneous catalyst can reduce the formation of undesired by-products during a devolatilization stage, but this stage is not claimed and as such this argument is unpersuasive.

For the record, the Examiner notes that the prior art does not support applicants' assertion of undesired gums and resin formation when devolatilization occurs in the presence of a homogeneous catalyst. See for instance Example 1 in Jachmann et al., in which after "removal of the volatile reaction products" (i.e. after devolatilization), a

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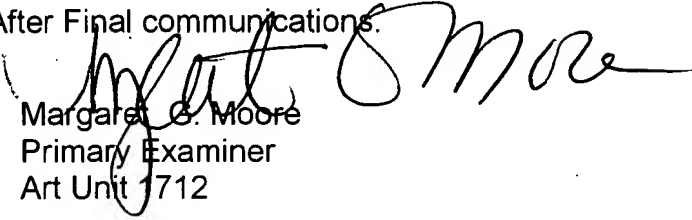
moderately viscous oil is obtained having the formula shown. This does not indicate that any type of undesired crosslinking occurs and the Examiner cannot rely on the mere allegations found in the specification.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 703-308-4334. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on 703-308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9311 for regular communications and 703-872-9310 for After Final communications.


Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
June 30, 2003